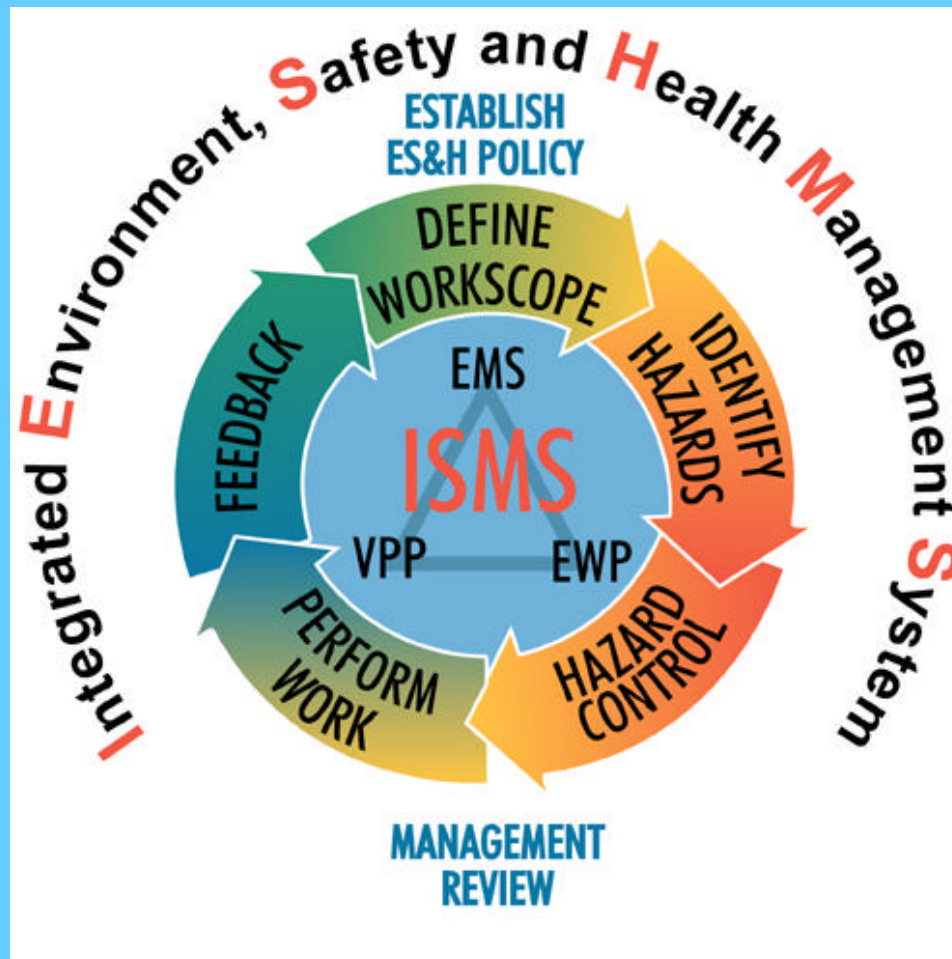
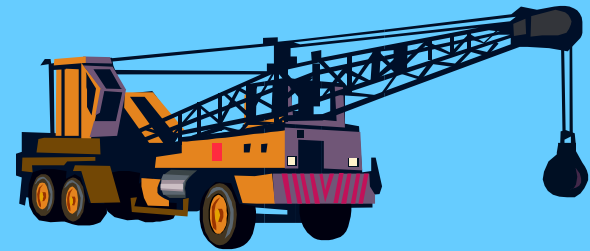


# Automated Job Hazard Analysis



# AJHA

## Automated Job Hazard Analysis



AJHA v4.0

## Automated Job Hazard Analysis -- 4.0

Version 4.0.15

Facility:

View Previous AJHA's

Select this option to view an AJHA Inventory List for the facility; revise or edit an existing AJHA; create a new AJHA (clone) from an existing one; or view previously created forms or permits

Start The New AJHA Process  
from Scratch

Select this option to create a new AJHA for a task without any prepopulated data from an existing AJHA.

Enter the RWP Database

Select this option to attach an RWP to an AJHA, or to view, edit, create, revise, clone, delete, or change the status of an RWP, or to otherwise manage the RWP Inventory.

Information Links and  
Lessons Learned

Select this option to view links to Lessons Learned, ISMS, and other information sources.

Automated Job Hazard Analysis

? ISMS/AJHA

? User Guide

Exit AJHA

AJHA v4.0

Automated Job Hazard Analysis -- 4.0

Version4.0.15

Facility:

View Previous AJHA's

Start The New AJHA Process from Scratch

Enter the RWP Database

Information Links and Lessons Learned

Code	Facility Name	Write
1K	K-Basins	Yes
2C	WESF	Yes
2S	222-S LAB	Yes
2T	T-PLANT	Yes
2X	SOLID WASTE	Yes
2Z	PFP	Yes
305	Engineering Test Labora	No
306E	Engineering Laboratory/I	No
3C	FSS	Yes
3I	324	No
3M	327	Yes
3T/3D	WMH 300 AREA	Yes
4F	FFTF	Yes
6D	WSCF	Yes
6H	HAMMER	Yes
DYN	DYNCORP	Yes
EL	200A LWPF	Yes
FDH	Fluor Daniel Hanford	Yes
FS	FASTER	No
PTH	Protection Technology	No
RPP	River Protection Proj	Yes

Click here to start

for the facility; revise or edit  
an existing one; or view

ask without any prepopulated

, or to view, edit, create,  
RWP, or to otherwise

ed, ISMS, and other

Form View

NUM

Automated Job Hazard Analysis - [AJHA Navigation]

Go To Start

Go To Inventory

User Guide

Exit AJHA

# AJHA Navigation Screen

Current Facility: XX

AJHA ID: XX-472

Rev: 0

Locked: No

Lock/UnLock records from Inventory Screen

Fill Out Task Information

Procedure Adequacy (Optional Prescreen)

Risk and Complexity (Optional Pre/Post Screen)

Identify Hazards

Select Controls

Fill Out Forms/Permits

Involvement

Finalize AJHA

Print Reports

Information Links and Lessons Learned

Click each button to complete the AJHA

Form View

NUM

## Task Information

AJHA ID: XX-472

Locked: No

Facility: XX

Description:

Prepare a demonstration for the ISMS workshop to show the function and content of the Fluor Hanford Automated Job Hazard Analysis tool that is implemented as part of activity level Integrated Safety Management.

Work Title:

SAMPLE AJHA FOR DEMONSTRATON PURPOS

Work Number:

DEMO - AJHA

Work Location:

ISMS Workshop

Main Task Title:

DEMO - AJHA

AJHA Coordinator:

Jaeger, Miles B

SubTask1 Title:

WalkThrough Date:

12/05/2000

SubTask2 Title:

WalkThrough Leader:

Jaeger, Miles B

SubTask3 Title:

General Comments:

DEMONSTRATION PURPOSES ONLY

Initiation Date:

10/24/2000

Revision:

0

Completion Date:

Revision Date:

Status:

AJHA initiated / AJHA not complete

Expiration Date:



Facility: XX ID: XX-473 Rev 0 Title: Locked: No

## AJHA Hazard ID Navigation:

- + ? Scaffolding needed?
- + ? **Excavation work?**
- + ? Elevating work platforms?
- + ? Portable ladder?
- + ? Hoisting, Rigging, or Cranes?
- + ? Use of forklift truck?
- + ? Falls from elevation?
- + ? Slip or trip hazards?
- + ? Hazards from falling objects?
- + ? Blind Penetration of Walls, Floors, Ceilings, Roofs, Other Surfaces?
- + ? Electrical Hazard: Testing or troubleshooting energized circuits?
- + ? Electrical Hazard: Potential contact other than testing/troubleshooting
- + ? New electrical installation or temporary wiring?
- + ? Hazardous energy sources (includes Lockout/Tagout)?
- + ? Gas cylinders (bottles) used or affected by the work?
- + ? Roof work/access?
- + ? Machine guarding issues?
- + ? Medical emergency provisions.
- + ? Hand or portable power tools used?
- + ? Confined Space Entry?
- + ? Painting, finishing, prepping surfaces?
- + ? Lead or lead-containing materials?
- + ? Tank, line, vessel opened/breached?
- + ? Chemicals/chemical products?
- + ? Significant noise sources?

## Hazard Question:

Will there be excavation work?

Hazard?



Yes



No



?

## Mini Help:

Click text for scroll bar.

If discovery of a hazardous and/or radioactive legacy spill or release, adhere to PRO-453.

Facility: XX ID: XX-473 Rev 0 Title: Locked: No

## AJHA Hazard ID Navigation:

- + ? New electrical installation or temporary wiring?
- ... ? Hazardous energy sources (includes Lockout/Tagout)?
- ... ? Gas cylinders (bottles) used or affected by the work?
- + ? Roof work/access?
- ... ? Machine guarding issues?
- ... ? Medical emergency provisions.
- ... ? Hand or portable power tools used?
- + ? Confined Space Entry?
- + ? Painting, finishing, prepping surfaces?
- + ? **Lead or lead-containing materials?**
- + ? Tank, line, vessel opened/breached?
- + ? Chemicals/chemical products?
- + ? Significant noise sources?
- + ? Asbestos containing materials?
- + ? Dusts/particulates?
- + ? Potential beryllium area or presence?
- + ? Potential for heat stress?
- + ? Hazardous waste activity?
- + ? Hot work?
- ... ? Road/intersections closures or detours?
- ... ? Fire hydrants used?
- ... ? Portable heating equipment used?
- ... ? Fire System Maintenance?
- + ? Structure Modification, Construction, or Addition?
- + ? NEPA screening needed?

## Hazard Question:

Does the activity involve lead or lead-containing materials?

Hazard?



Yes



No



?

## Mini Help:

Click text for scroll bar.

If lead material is simply present at or near the worksite, but is not handled, and an exposure does not exist (e.g., through disturbance, handling, or inhalation), the answer to this question is most likely "No". Example: if some lead shielding is in the area, but it is not affected by the work, is not being handled or disturbed, and is in good condition, then the answer to this question is most likely "No", because there is no hazard. On the other hand, if the shielding were being handled, the answer would be "Yes".



Facility: XX ID: XX-473 Rev 0 Title: Locked: No

## AJHA Hazard ID Navigation:

- ☐ Potential beryllium area or presence?
- ☐ Potential for heat stress?
- ☐ Hazardous waste activity?
- ☐ Hot work?
- ☐ Road/intersections closures or detours?
- ☐ Fire hydrants used?
- ☐ Portable heating equipment used?
- ☐ Fire System Maintenance?
- ☐ Structure Modification, Construction, or Addition?
- ☐ NEPA screening needed?
- ☒ Rad Material or Rad Area Involved?
- ☐ Rad or toxic air emissions?
- ☐ Effluent control or monitoring device?
- ☐ Discharge of liquid or solid material?
- ☐ Change to existing effluent?
- ☐ Waste generation, handling, treatment or disposal?
- ☐ Involves Safety Class SSCs in FAB?
- ☐ Involves/affects controls in FAB?
- ☐ Activity outside of FAB?
- ☐ Involves >15g fissionable material?
- ☐ Affects area with >15g Fiss Mat?
- ☐ Other?
- ☐ Specify General PPE Requirements?
- ☐ Feedback/lessons learned info used?

## Hazard Question:

Does the activity involve or potentially involve radiological material or is it being conducted in an area that is potentially contaminated or have a radiological posting?

Hazard?



Yes



No



?

## Mini Help:

Click text for scroll bar.

Answer "yes" even if there is any reason to suspect that radioactive materials could be present. This includes any soil disturbance/excavation.

Locked:

## AJHA Hazard ID Navigation:

- ☐ Blind Penetration of Walls, Floors, Ceilings, Roofs, Other Surfaces?
- ☐ Electrical Hazard; Testing or troubleshooting energized circuits?
- ☒ Electrical Hazard: Potential contact other than testing/troubleshooting
  - ☒ Within limited approach space?
  - ☒ Within the restricted approach space?
  - ☒ Within prohibited approach boundary?
  - ☐ Overhead or underground circuits belonging to Electrical Utilities?
- ☒ New electrical installation or temporary wiring?
- ☒ Hazardous energy sources (includes Lockout/Tagout)?
- ☐ Gas cylinders (bottles) used or affected by the work?
- ☒ Roof work/access?
- ☐ Machine guarding issues?
- ☐ Medical emergency provisions.
- ☐ Hand or portable power tools used?
- ☒ Confined Space Entry?
- ☒ Painting, finishing, prepping surfaces?
  - ☒ Spray painting?
  - ☒ Solvent based?
  - ☐ Lead based paints?
  - ☐ Chromate containing paints?
  - ☐ Previously painted?
  - ☐ New paints/products being used?
  - ☒ Exposure = or > 0.5 OEL
- ☒ Lead or lead-containing materials?
- ☒ Tank, line, vessel opened/breached?

**Hazard Question:**

Is the work within the prohibited approach boundary?

Hazard?

 <u>Yes</u>	 <u>No</u>	 ?
--	---	---

Mini Help:

Click text for scroll bar.

The Prohibited Approach Boundary is: (a) avoid contact for less than 300V; (b) 1 inch for 300V to 750V; (c) 3 inches for over 750V but not over 2KV; (d) 7 inches for over 2KV but not over 15KV; and (e) 10 inches for over 15KV but not over 36KV. This includes reduced inadvertent movement. When assessing distance, include the length of any conductive tools being used to perform work. For the source of this information, see HELP Screen for HNF-PRO-088, Appendix A, Boundary Distances.

Facility: XX ID: XX-472 Rev: 0 Title: SAMPLE AJHA FOR DEMONSTRATION PURPOSES Locked: No

## AJHA Hazard ID Navigation:

- ☒ Lead or lead-containing materials?
  - ☒ Bulk lead materials?
  - ☐ Lead abatement/paint removal?
  - ☐ Lead melting/pouring?
  - ☐ Hot work on lead materials?
  - ☐ Lead soldering?
  - ☒ Lead exposure = or > 30 ug/m3
- ☐ Tank, line, vessel opened/breached?
- ☐ Chemicals/chemical products?
- ☐ Significant noise sources?
- ☐ Asbestos containing materials?
- ☐ Dusts/particulates?
- ☒ Potential beryllium area or presence?
  - ☒ Disturbance of surfaces, dust?
  - ☒ Work on Be area ventilation/containment systems?
  - ☐ Work on Be equipment?
  - ☐ Cleanup, decon, abate Be area/equipment?
  - ☐ Beryllium handling or use?
  - ☐ Be area sampling/surveying?
  - ☐ Exposure = or > 0.2 ug/m3?
- ☐ Potential for heat stress?
- ☐ Hazardous waste activity?
- ☒ Hot work?
  - ☐ Poor vent or SS or Galv?
  - ☐ Hot work on Lead?

## Hazard Question:

Does the activity involve lead or lead-containing materials?

Hazard?



Yes



No



?

## Mini Help:

Click text for scroll bar.

If lead material is simply present at or near the worksite, but is not handled, and an exposure does not exist (e.g., through disturbance, handling, or inhalation), the answer to this question is most likely "No". Example: if some lead shielding is in the area, but it is not affected by the work, is not being handled or disturbed, and is in good condition, then the answer to this question is most likely "No", because there is no hazard. On the other hand, if the shielding were being handled, the answer would be "Yes".



Facility: XX ID: XX-472 Rev 0 Title: SAMPLE AJHA FOR DEMONSTRATION PURPOSES Locked: No

## AJHA Hazard ID Navigation:

- ☒ Rad Material or Rad Area Involved?
  - ☒ RWP(s) Required?
  - ☐ Rad system breached?
  - ☐ Rad contaminated soil disturbed?
  - ☒ Loose/airborne contamination created?
  - ☒ Fixed or painted rad contamination disturbed?
  - ☐ Rad generating device involved?
  - ☐ Infrequent or first time activity?
  - ☐ Rad >0.1 of DAC or Int Exp >200 DAC-hr?
  - ☒ Removable cont >2K a; 100K b-g?
  - ☐ Whole body dose >1,000 mrem/hr?
  - ☐ Collective dose >1,000 mrem?
  - ☐ Low Risk Rad Activity?
  - ☒ Medium Risk Rad Activity?
  - ☐ High Risk Rad Activity?
- ☒ Rad or toxic air emissions?
  - ☐ Effluent control or monitoring device?
  - ☐ Discharge of liquid or solid material?
  - ☐ Change to existing effluent?
- ☒ Waste generation, handling, treatment or disposal?
  - ☐ Modification to Part A/B RCRA Permit?
  - ☒ Hazardous waste?
  - ☒ Radiological waste?
  - ☐ Mixed waste?
  - ☐ Compactible waste?

## Hazard Question:

Does the activity involve or potentially involve radiological material or is it being conducted in an area that is potentially contaminated or have a radiological posting?

Hazard?



Yes



No



?

## Mini Help:

Click text for scroll bar.

Answer "yes" even if there is any reason to suspect that radioactive materials could be present. This includes any soil disturbance/excavation.

Automated Job Hazard Analysis - [Job Hazard Analysis - Drill Down]

Navigation
Select Controls
Comments
LL/Info
Help
User Guide

Facility: XX ID: XX-472 Rev 0 Title: SAMPLE AJHA FOR DEMONSTRATION PURPOSES Locked: No

### AJHA Hazard ID Navigation:

- Roof work/access?
- Machine guarding issues?
- Medical emergency provisions.
- Hand or portable power tools used?
- Confined Space Entry?
- Painting, finishing, prepping surfaces?
- Lead or lead-containing materials?
- Bulk lead materials?
- Lead abatement/paint removal?
- Lead melting/pouring?
- Hot work on lead materials?
- Lead soldering?
- Lead exposure = or > 30 ug/m3
- Tank, line, vessel opened/breached?
- Chemicals/chemical products?
- Significant noise sources?
- Asbestos containing materials?
- Dusts/particulates?
- Potential beryllium area or presence?
- Potential for heat stress?
- Hazardous waste activity?
- Hot work?
- Road/intersections closures or detours?
- Fire hydrants used?
- Portable heating equipment used?

### Hazard Question:

Does the activity involve lead or lead-containing materials?

Hazard?

Yes No ?

### Mini Help:

Click text for scroll bar.

If lead material is simply present at or near the worksite, but is not handled, and an exposure does not exist (e.g., through disturbance, handling, or inhalation), the answer to this question is most likely "No". Example: if some lead shielding is in the area, but it is not affected by the work, is not being handled or disturbed, and is in good condition, then the answer to this question is most likely "No", because there is no hazard. On the other hand, if the shielding were being handled, the answer would be "Yes".

Form View
NUM



Automated Job Hazard Analysis - [Job Hazard Analysis - Drill Down]

Navigation
Select Controls
Comments
LL/Info
Help
User Guide

Facility: XX ID: XX-472 Rev 0 Title: SAMPLE AJHA FOR DEMONSTRATION PURPOSES Locked: No

### AJHA Hazard ID Navigation:

- Roof work/access?
- Machine guarding issues?
- Medical emergency provisions.
- Hand or portable power tools used?
- Confined Space Entry?
- Painting, finishing, prepping surfaces?
- Lead or lead-containing materials?
  - Bulk lead materials?
  - Lead abatement/paint removal?
  - Lead melting/pouring?
  - Hot work on lead materials?
  - Lead soldering?
  - Lead exposure = or > 30 ug/m3
- Tank, line, vessel opened/breached?
- Chemicals/chemical products?
- Significant noise sources?
- Asbestos containing materials?
- Dusts/particulates?
- Potential beryllium area or presence?
- Potential for heat stress?
- Hazardous waste activity?
- Hot work?
- Road/intersections closures or detours?
- Fire hydrants used?
- Portable heating equipment used?

### Hazard Question:

Does the activity involve lead or lead-containing materials?

Hazard?

Yes No ?

### Mini Help:

Click text for scroll bar.

If lead material is simply present at or near the worksite, but is not handled, and an exposure does not exist (e.g., through disturbance, handling, or inhalation), the answer to this question is most likely "No". Example: if some lead shielding is in the area, but it is not affected by the work, is not being handled or disturbed, and is in good condition, then the answer to this question is most likely "No", because there is no hazard. On the other hand, if the shielding were being handled, the answer would be "Yes".

Form View
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Detailed Help  
for each  
Hazard

Automated Job Hazard Analysis

File Edit Bookmark Options Help

Help Topics Back Print << >>

Lead Hazard

[Requirements](#)  
[Definitions/Explanatory Information](#)  
[Guidance on Hazard Controls/Actions](#)  
[Facility Specific Information](#)

Requirements

- OSHA Construction Standard--[1926.62](#)
- OSHA General Industry Standard--[1910.1025](#)
- PHPP Lead Program--[HNF-PRO-119](#) [LMH-PRO-119](#)

Definitions/Explanatory Information

1. Lead may be found in paints, shielding materials, bulk metals, solders, alloys, nails for metal roofs, mortars, glass, piping systems, ammunition, metal seams and joints, lab and process chemicals, various equipment and building components, waste materials, and contaminated environmental media.

Your IH may have to do a hazard evaluation with sampling and analysis to determine if lead is present in materials being used or disturbed, such as paints, painted surfaces, etc.

2. Some common activities at Hanford to consider for potential lead exposure include handling lead brick/shielding, paint scraping or removal, decontaminating painted surfaces by abrasive blasting or surface removal, use of [powder actuated tools](#).

3. Past Hanford exposure records show that moving lead brick/shielding can cause exposures above the [OSHA AL](#) and/or [OSHA PEL](#). Oxides (white powdery film) on lead surfaces are particularly capable of causing elevated exposures.

Guidance on Hazard Controls/Actions

1. Lead hazard communication (awareness) training is required for lead exposures below the [OSHA AL](#) and as an interim protective measure for certain

Internet Links to Requirements

Automated Job Hazard Analysis - [Job Hazard Analysis - Drill Down]

Navigation
Select Controls
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Help
User Guide

Facility: XX ID: XX-472 Rev 0 Title: SAMPLE AJHA FOR DEMONSTRATION PURPOSES Locked: No

### AJHA Hazard ID Navigation:

- Roof work/access?
- Machine guarding issues?
- Medical emergency provisions.
- Hand or portable power tools used?
- Confined Space Entry?
- Painting, finishing, prepping surfaces?
- Lead or lead-containing materials?
  - Bulk lead materials?
  - Lead abatement/paint removal?
  - Lead melting/pouring?
  - Hot work on lead materials?
  - Lead soldering?
  - Lead exposure = or > 30 ug/m3
- Tank, line, vessel opened/breached?
- Chemicals/chemical products?
- Significant noise sources?
- Asbestos containing materials?
- Dusts/particulates?
- Potential beryllium area or presence?
- Potential for heat stress?
- Hazardous waste activity?
- Hot work?
- Road/intersections closures or detours?
- Fire hydrants used?
- Portable heating equipment used?

### Hazard Question:

Does the activity involve lead or lead-containing materials?

Hazard?

Yes No ?

### Mini Help:

Click text for scroll bar.

If lead material is simply present at or near the worksite, but is not handled, and an exposure does not exist (e.g., through disturbance, handling, or inhalation), the answer to this question is most likely "No". Example: if some lead shielding is in the area, but it is not affected by the work, is not being handled or disturbed, and is in good condition, then the answer to this question is most likely "No", because there is no hazard. On the other hand, if the shielding were being handled, the answer would be "Yes".

Form View
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# AJHA Information Links

[Site Wide Lessons Learned Database](#)

[AJHA Lessons Learned / Information Database](#)

[AJHA Bulletin Board](#)

[AJHA Mail Box \(^AJHA\)](#)

[ISMS Plan](#)

[ISMS Web Site](#)

[Close](#)

[HNF-PRO-079, JHA](#)

[Radiation Protection Web Site](#)

[Link to be Added](#)

[Link to be Added](#)

[K-Basin Links](#)

[PFP Links](#)

[River Protection Links](#)

Web Site  
for Hanford  
Lessons  
Learned

Web Sites  
for Facility  
Lessons Learned



Automated Job Hazard Analysis - [Job Hazard Analysis - Drill Down]

Navigation
Select Controls
Comments
LL/Info
Help
User Guide

Facility: XX ID: XX-472 Rev 0 File: SAMPLE AJHA FOR DEMONSTRATION PURPOSES Locked: No

### AJHA Hazard ID Navigation:

- Scaffolding needed?
- Excavation work?
- Elevating work platforms?
- Portable ladder?
- Hoisting, Rigging, or Crane?
- Use of forklift truck?
- Falls from elevation?
- Slip or trip hazards?
- Hazards from falling objects?
- Blind Penetration of Walls, Floors, Ceilings, Roofs, Other Surfaces?
- Electrical Hazard: Testing or troubleshooting energized circuits?
- Electrical Hazard: Potential contact other than testing/troubleshooting?
- New electrical installation or temporary wiring?
- Hazardous energy sources (includes Lockout/Tagout)?
- Gas cylinders (bottles) used or affected by the work?
- Roof work/access?
- Machine guarding issues?
- Medical emergency provisions.
- Hand or portable power tools used?
- Confined Space Entry?
- Painting, finishing, prepping surfaces?
- Lead or lead-containing materials?
- Tank, line, vessel opened/breached?
- Chemicals/chemical products?
- Significant noise sources?

### Hazard Question:

Does activity involve lead or lead-containing materials?

Hazard

Yes No

### Mini Help:

Click text for scroll bar.

If lead material is simply present at or near the worksite, but is not handled, and an exposure does not exist (e.g., through disturbance, handling, or inhalation), the answer to this question is most likely "No". Example: if some lead shielding is in the area, but it is not affected by the work, is not being handled or disturbed, and is in good condition, then the answer to this question is most likely "No", because there is no hazard. On the other hand, if the shielding were being handled, the answer would be "Yes".

Form View
NUM



Automated Job Hazard Analysis - [Job Hazard Analysis - Drill Down]

Navigation
Select Controls
Comments
LL/Info
Help
User Guide

Facility: XX ID: XX-472 Rev 0 Title: SAMPLE AJHA FOR DEMONSTRATION PURPOSES Locked: No

### AJHA Hazard ID Navigation:

- Blind Penetration of Walls, Floors, Ceilings, Roofs, Other Surfaces?
- Electrical Hazard: Testing or troubleshooting energized circuits?
- Electrical Hazard: Potential contact other than testing/troubleshooting
  - Within limited approach space?
  - Within the restricted approach space?
  - Within prohibited approach boundary?
  - Overhead or underground circuits belonging to Electrical Utilities?
- New electrical installation or temporary wiring?
- Hazardous energy sources (includes Lockout/Tagout)?
- Gas cylinders (bottles) used or affected by the activity?
- Roof work/access?
- Machine guarding issues?
- Medical emergency provisions.
- Hand or portable power tools used?
- Confined Space Entry?
- Painting, finishing, prepping surfaces?
- Lead or lead-containing materials?
  - Bulk lead materials?
  - Lead abatement/paint removal?
  - Lead melting/pouring?
  - Hot work on lead materials?
  - Lead soldering?
  - Lead exposure = or > 30 ug/m3
- Tank, line, vessel opened/breached?
- Chemicals/chemical products?

### Hazard Question:

Does the activity involve lead or lead-containing materials?

Hazard?

☒ Yes
☐ No
☐ ?

### Mini Help:

Click text for scroll bar.

If lead material is simply present at or near the worksite, but is not handled, and an exposure does not exist (e.g., through disturbance, handling, or inhalation), the answer to this question is most likely "No". Example: if some lead shielding is in the area, but it is not affected by the work, is not being handled or disturbed, and is in good condition, then the answer to this question is most likely "No", because there is no hazard. On the other hand, if the shielding were being handled, the answer would be "Yes".

Form View
NUM

Click for  
Hazard  
Controls

Automated Job Hazard Analysis - [Select Controls]

Navigation
Identify Hazards
Controls by Task
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Spelling...

## Select Controls

**Identified Hazards:**  
Electrical Hazard: Potential contact other than testing/troub

Within limited approach space?  
Within the restricted approach space?  
Within prohibited approach boundary?

Locked: No

Main Task: DEMO - AJHA  
Sub Task1:  
Sub Task2:  
Sub Task3:

Mandatory Controls
Select Additional Controls

	Main	1	2	3
Energized Electrical Work Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assess work for electrical arc hazards and establish flash protection boundary, where necessary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assign qualified person with specific knowledge of equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do not wear conductive accessories unless rendered nonconductive by covering, wrapping, insulating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adhere to HNF-PRO-088	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
De-energize electrical equipment to the extent feasible before entering restricted space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical safety training	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Record: 2 of 13

Form View
NUM

Mandatory Controls  
for Electrical

Automated Job Hazard Analysis - [Select Controls]

Navigation
Identify Hazards
Controls by Task
LL/Info
Help
User Guide
Spelling...

## Select Controls

**Identified Hazards:**

Lead or lead-containing materials?

Bulk lead materials?
Lead exposure = or > 30 ug/m3

Locked: No

Main Task: DEMO - AJHA
Sub Task1:
Sub Task2:
Sub Task3:

Mandatory Controls
Select Additional Controls

Lead hazard communication training (assuming exposure is less than 30 ug/m3)
Lead worker training
Ensure workers' EJTA/PEH reflects exposure
Biological monitoring

Main	1	2	3
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mandatory Controls for Lead

Record: 5 of 13
Form View
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Automated Job Hazard Analysis - [Select Controls]

Navigation
Identify Hazards
Controls by Task
LL/Info
Help
User Guide
Spelling...

## Select Controls

**Identified Hazards:**  
Electrical Hazard: Potential contact other than testing/troub

Within limited approach space?  
Within the restricted approach space?  
Within prohibited approach boundary?

Locked: No

Main Task: DEMO - AJHA  
Sub Task1:  
Sub Task2:  
Sub Task3:

Mandatory Controls
Select Additional Controls

Wear natural fiber clothing whenever exposed to above 150V to ground  
Use insulated tools  
De-energize circuits  
Electrical protective equipment

Main	1	2	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Record: 2 of 13

Form View
NUM

Select  
Additional Controls  
for Electrical



Automated Job Hazard Analysis - [Select Controls]

Navigation Identify Hazards Controls by Task LL/Info Help User Guide Spelling...

## Select Controls

Locked: No

**Identified Hazards:**

Lead or lead-containing materials?

Bulk lead materials?

Lead exposure = or > 30 ug/m3

Main Task: DEMO - AJHA

Sub Task1:

Sub Task2:

Sub Task3:

**Mandatory Controls** **Select Additional Controls**

	Main	1	2	3
Housekeeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hygiene practices/facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Containments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ventilation/engineering controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respiratory protection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal protective equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposure monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Record: 5 of 13

Form View

NUM

Select Additional Controls for Lead



Automated Job Hazard Analysis - [Controls (listed by task)]

Navigation
Select Controls
Forms And Permits
Help
User Guide
Spelling...

## Controls (Listed By Task)

Locked: No

**Identified Hazard:**  
Electrical Hazard: Potential contact other than testing/troubles  

Within limited approach space?  
Within the restricted approach space?  
Within prohibited approach boundary?

Main Task: DEMO - AJHA  
Sub Task1:  
Sub Task2:  
Sub Task3:

Controls:

Main
Sub Task 1
Sub Task 2
Sub Task 3

Control	Additional Text
Energized Electrical Work Permit	
Assess work for electric arc hazards and establish flash protection I	
Electrical protective equipment	Rubber insulating gloves with leather protectors
Assign qualified person with specific knowledge of equipment	
Do not wear conductive accessories unless rendered nonconductive	
Adhere to HNF-PRO-088	
De-energize electrical equipment to the extent feasible before enterin	
Electrical safety training	

Added details  
for the  
Electrical Controls

Scroll Main Hazard
Record: 2 of 13

Form View
NUM

Automated Job Hazard Analysis - [Controls (listed by task)]

Navigation
Select Controls
Forms And Permits
Help
User Guide
Spelling...

## Controls (Listed By Task)

Locked: No

**Identified Hazard:**

Lead or lead-containing materials?

Bulk lead materials?
Lead exposure = or > 30 ug/m3

Main Task: DEMO - AJHA
Sub Task1:
Sub Task2:
Sub Task3:

Controls:

Main
Sub Task 1
Sub Task 2
Sub Task 3

Control	Additional Text
Lead hazard communication training (assuming exposure is less than	
Lead worker training	
Ensure workers' EJTA/PEH reflects lead exposure	
Housekeeping	
Hygiene practices/facilities	
Respiratory protection	Full facepiece PAPR with HEPA Cartridges
Personal protective equipment	
Biological monitoring	

Added details for the Lead Controls

Record:
5
of 13

Form View
NUM

Automated Job Hazard Analysis - [Forms and Permits]

Navigation

Controls by Task

Involvement

User Guide

Forms and Permits

AJHA ID: XX-472 Locked: No

Facility: XX

Forms/Permits that are required by the identified hazards:

Name

ALARA Report (AMW or Equivalent)

Energized Electrical Work Permit

Hot Work Permit

NEPA CX, SWCX, EIS, EA Form

RWP / RWP Request

Clear Selection

Forms/Permits that exist in this AJHA:

Name	Revision	PermitID	Complete
Energized Electrical Work Permit	0	DEMO 1	No
RWP / RWP Request	0	TEST	Yes

Form/Permit Options:

View/Edit

Create

Clone

Revision

Remove

ID Existing

Add From Inventory

Complete (Toggle)

Required Forms/Permits based on Hazards

Create required Forms/Permits

Form View

NUM

JHA ID XX-472

**ENERGIZED ELECTRICAL WORK PERMIT**

Permit ID: DEMO 1 Rev: 0

Work Order Number

DEMO - AJHA

Area

Location

ISMS Workshop

Job Description (include activities to be performed such as the components involved or voltages)

Prepare a demonstration for the ISMS workshop to show the function and content of the Fluor Hanford Automated Job Hazard Analysis tool that is implemented as part of activity level Integrated Safety Management.

☒ Restricted space work☒ Prohibited space work (FDNWI requires Project Director's signature)**Energized Electrical Work Authorization Justification**☒ Introduces additional hazards☒ Infeasible due to equipment design☒ Introduces increased hazards☒ Infeasible due to operational limitations

Justification Explanation:

**Safe Work Requirements**☒ Qualified personnel assigned to perform work☒ Person trained in cardiopulmonary resuscitation (CPR), and First Aid☒ Stand-by person equipped with insulating equipment needed for emergency response☒ Adequate working clearance and egress routes available☒ Communications available and in operating condition☒ Work area has adequate lighting☒ Work area control measures:☒ Barriers and signs



JHA ID XX-472

RWP Status: RWP Active

## HANFORD RADIOLOGICAL WORK PERMIT

Contractor: Fluor Hanford

- ☒ General  
☒ Job Specific

Tech. Doc. No. 1234

Location Code

1234

RWP Number

TEST

Revision

000

Start Date

09/18/2000

End Date

09/18/2001

Responsible Organization

Fluor Hanford

Job Location

ISMS Workshop

Job Description and Type of Area:

TEST DEMO -- This is a test RWP for the ISMS Workshop

Primary Isotopes(s):

☐ MFP☒ MAP☒ Cs☐ Sr☒ H-3☐ U☐ Pu☐ Other

Radiation Emitted:

- ☒ Alpha  
☒ Beta  
☐ Photons  
☐ Neutrons

Estimated Dose Rates

General Area: 123 mrem/h

Maximum Contact: mrem/h

Contamination Levels

Beta-gamma: 123 dpm/100 cm<sup>2</sup>Alpha: 123 dpm/100 cm<sup>2</sup>Radiological Worker  
Training Req.

I

II

X

Internal Dosimetry Requirements (for routine work under this RWP, except those entering for observation only)

☐

Annual Whole Body Count

☐

Lung Count

☐

Urinalysis

Isotopes to Test for (if any)

## MINIMUM RADIOLOGICAL PROTECTION REQUIREMENTS

## SPECIAL INSTRUCTIONS (SI)

HPT Coverage:

Dosimetry

Continuous

HSD - TLD

Intermittent

HCND - TLD

Start of Job

Pocket Dosimeter

End of Job

SI 2

Electronic Dosimeter

Self Survey (if qualified)

Finger Rings

HPT Survey Required

Time Keeping

Auto. Survey Device

Entry Control System

See SI#

PNAD

Write in Special Instructions in this field for the RWP.

1. TEST

2. DEMO

3. TEST

4. DEMO

5. TEST

## MINIMUM PROTECTIVE EQUIPMENT



Automated Job Hazard Analysis - [Involvement]

Navigation
Forms and Permits
Finalize the AJHA
Print Req. SME List
User Guide

## Subject Matter Expert/Participant Involvement

Current Facility: XX
AJHA ID: XX-472
Locked: No

The following involvements were triggered by the hazards and controls:

Involve SME's	Identified Hazard Leading to Involvement
Environmental Compliance Officer/Representative	Rad or toxic air emissions?
Facility Waste Coordinator	Hazardous waste?
Facility Waste Coordinator	Radiological waste?
Facility Waste Coordinator	Waste generation, handling, treatment or disposal?
Industrial Hygiene	Spray painting?
Industrial Hygiene	Solvent based?

SME's add their involvement indications below (press the Add Subject Matter Expert) or add Participants:

Add SME
Add SME By Coord.
Add Participant
Remove
Chg Password

SME/Participant List	Name	Title / Text
Industrial Hygiene	SMITH, ED 10/24/00	
Facility Waste Coordinator	SZELMECZKA, ROGER W by CONE, CHARL	
Industrial Safety	BELL, JOHN 10/24/00	
Operations	OLDFIELD, SEANA M 10/24/00	
Radcon Screener	OTTLEY, DAVID B (DAVE) 10/24/00	
Two-Day NEPA Trained	JAEGER, MILES 10/24/00	
	Smith, John R 10/24/00	Electrician

Form View

FLTR

NUM

Required  
Subject  
Matter  
Experts  
based on  
hazards

Subject  
Matter  
Expert  
signoffs

Automated Job Hazard Analysis - [Finalize AJHA]

Navigation

← Involvement

→ Print Reports

? User Guide

## Finalize AJHA

Current Facility:

XX

AJHA ID:

XX-472

Revision:

0

Locked:

No

Current AJHA Status:

AJHA initiated / AJHA not complete

Identify Hazards (Tree):

Complete

Required Forms/Permits:

Missing ALARA Report (AMW or Equivalent), Energized Electrical Work Permit, Hot Work Permit, NEPA CX,

Required Involvement:

Complete

Set the AJHA Status:

AJHA Complete Work Not Complete

Missing information identified.  
AJHA cannot be completed.

Form View

NUM

Automated Job Hazard Analysis - [Finalize AJHA]

Navigation | Involvement | Print Reports | User Guide

## Finalize AJHA

Current Facility: XX  
AJHA ID: XX-472  
Revision: 0  
Locked: No

Current AJHA Status: AJHA initiated / AJHA not complete

Identify Hazards (Tree): Complete

Required Forms/Permits: Complete

Required Involvement: Complete

Set the AJHA Status:

AJHA Complete Work Not Complete | Standing AJHA Complete | Work Complete/Cancelled (AJHA Inactive)

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**All information is now complete**

**AJHA can be finalized**

Automated Job Hazard Analysis - [Print AJHA Reports]

Navigation

Print Selections

Print Preview

Standard AJHA Report

User Guide

Exit AJHA

Print AJHA Reports

Current Facility:

AJHA ID:

XX-472

Locked:

No

Task Information

☐ Include the task information in the AJHA report

Hazard Questions/Responses

☐ Include all hazard questions and responses

☐ Include the identified hazard questions and responses

☐ Include the identified hazard statements

Controls

☐ Report 3 -- controls by main/sub task grouped by hazards

☐ Report 3 with checklist

☐ Report 4 -- user selectable hazard/controls report

RadCon

☐ Print all RadCon related items (hazards, controls, F/P's)

Involvement

☐ Include the involvement list

☐ Include the required SME involvement list

Procedure Adequacy

☐ Include the procedure adequacy report

Risk and Complexity

☐ Include the risk and complexity report

Forms and Permits

☐ Include all forms/permits associated with this AJHA

☐ Include user selected forms/permits

☐ Include a pre-job briefing form

☐ Include walkthrough form

☐ Include walkthrough form and hazard checklist

☐ Include a blank form or permit

Print AJHA Standard Report

Form View

FLTR

NUM



Automated Job Hazard Analysis - [Inventory List]

Go To Start
Find
Print AJHA Inventory
User Guide
LL/Info
Exit AJHA

### AJHA Inventory List for 1K

AJHA ID	Rev	Init. Date	Work Title	Status	Comp. Date	Work Number	Locked
1K-1318	0	10/7/00	MCO Cask Trailer Modifications	I		1S-00-00294/I	No
1K-1317	0	10/6/00	miscellaneous paving	I		1K-98-03270/A	No
1K-1316	0	10/5/00	FRS Manipulator and Bridge Stop Functional Checks	I		FTP-SP-70-03	No
1K-1315	0	10/5/00	MCS software changes/corrections	P	10/5/00	1C-00-00072	No
1K-1314	0	10/4/00	Calibration of MHM Bridge SeismicPressureSwitches	I		SP-15-001S	No
1K-1313	0	10/3/00	Plug and install filter anti-siphon vlv,105KW	I		1K-00-02074/I	No
1K-1312	0	10/3/00	Replace dampers EF-1 & EF-2	C	10/5/00	1S-00-217/M	Yes
1K-1311	0	10/2/00	Install emergency stop guards	I		1K-00-1178/M	No
1K-1310	0	10/2/00	Bypass CTFM Damin Water Tank	P	10/6/00	1K-00-02415/I	No
1K-1309	0	10/2/00	Perfrom Transporter Cask Integrity Test	C	10/11/00	1S-00-00338/A	Yes
1K-1308	0	10/2/00	Perform testing of GEMS system	C	10/2/00	1S-00-320/	No
1K-1307	0	9/30/00	Load Pw/C IXM 4037 with mixed bead resin	I		1C-00-00032/A	No
1K-1306	0	9/29/00	Periodic Inspection of CVD Bridge Cranes	I		SP-14-002V	No
1K-1305	0	9/29/00	Deactivate / spare circuits 2, 4, 6 in LTG-PNL-B	I		1K-98-03477	No
1K-1304	0	9/29/00	Process Recovery After Loss of TW System - Bay 5	P	9/29/00	OP-47-025V	No
1K-1303	0	9/29/00	Process Recovery After Loss of TW System - Bay 4	P	9/29/00	OP-47-024V	No

View/Edit
Read Only
Create Revision
Print
Clone
Forms/Permits

AJHA Coordinator Only  
Lock/Unlock
Delete

Select a new category: All AJHA Categories

Form View
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A  
J  
H  
A